

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
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Date of mailing
(day/month/year) **06 APR 2005**

Applicant's or agent's file reference GR61-013		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/US04/01144	International filing date (day/month/year) 16 January 2004 (16.01.2004)	Priority date (day/month/year) 17 January 2003 (17.01.2003)	
International Patent Classification (IPC) or both national classification and IPC IPC(7): H01J 49/04 and US Cl.: 250/288			
Applicant GRIFFIN ANALYTICAL TECHNOLOGIES, INC.			

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230</p>	<p>Authorized officer John R Lee Telephone No. (571) 272-2477</p>
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International Application No.

PCT/US04/01144

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN SUBMISSION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International Application No.
PCT/US04/01

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 44, 66	YES
	Claims 1-43, 45-65, 67-71	NO
Inventive step (IS)	Claims NONE	YES
	Claims 1-43, 45-65, 67-71	NO
Industrial applicability (IA)	Claims 1-71	YES
	Claims NONE	NO

2. Citations and explanations:

2. Citations and explanations:

Claims 1-43, 45-65, and 67-71 lack novelty under PCT Article 33(2) as being anticipated by Drew et al. (5,313,061). Drew et al. disclose the following;

(a) A mass analyzer system 21 when mounted to the precision alignment assembly 500 which forms a part of the vacuum housing 20, including the vacuum housing side walls 600, and a pair of vacuum flanges 602 and 604. These components are welded, cast or molded into a single vacuum-tight enclosure except for one of the vacuum flanges 604 which may be removed to provide access to the mass analyzer 21 components within. The flange 501a of the assembly 500 is equivalent to a removable lid, as recited in claims 1-6, 9-12, 16-19, 21, 24-43, 45, 48, 56-59, 69, and 70. See column 11, line 5-58; column 14, line 4-14;

(b) The use of an ion trap, as recited in claims 7, 8, 20, 46, and 47. see Column 6, line 10-20;

(c) An ion source 34 is also mounted to the assembly, as recited in claims 13-15, 50-55, 60-65, 67, 68, and 71. See Column 8, line 44-56; and column 11, line 43-58;

(d) A semi-permeable membrane 16a, as recited in claims 22 and 49. See column 8, line 13-18.

Claims 44 and 66 lack an inventive step under PCT Article 33(3) as being obvious over Drew et al. (5,313,061) in view of H. Itoi (5,837,883). Drew et al. do not disclose the replacement of a fouled component, as recited in claims 44 and 66. However, H. Itoi discloses that all mass spectrometer components are fixed to base plate 26, so that the entire unit can be maintained from above when cover 30 is removed. See column 4, line 5-9.

Claims 1-71 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.